

## MULTI-TAP CAMERA

### ABSTRACT OF THE INVENTION

5        A camera comprises a multitap imager, separate  
digitizing channels for each imager tap, adjustments for  
channel gain and black level, a pattern generator, and a  
channel balancer. The channel balancer compares adjacent  
pixels and sums the differences in levels over many frames.  
10 Any accumulated difference is used as a feedback signal to  
drive the summing to a minimum. If the imager is  
temporarily hooded, the feedback is used to balance black  
levels between the channels. If the imager is operating,  
the feedback is used to dynamically adjust the channel gain  
15 of one channel to match the other. A pattern generator is  
used once during calibration to generate a test pattern in  
the digitizing channels that makes it obvious to a  
framegrabber how exactly to restitching the various lanes or  
zones of the whole image frame back together.

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